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Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of)	
)	
Performance Measurements and)	CC Docket No. 98-56
Reporting Requirements)	RM-9101
for Operations Support Systems,)	
Interconnection, and Operator Services)	
and Directory Assistance)	
)	

NOTICE OF PROPOSED RULEMAKING

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By the Commission: Commissioners Ness, Powell, and Tristani issuing separate statements;
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I. INTRODUCTION

1. In this proceeding, we explore ways to advance a fundamental goal of the Telecommunications Act of 1996¹ -- to increase consumer choice by fostering competition in the provision of local telephone service. The 1996 Act requires incumbent local telephone service providers to open their markets to competition by establishing three modes of entry by competing carriers into the local exchange market: (1) through the use of their own facilities; (2) through the use of elements from the incumbent's network; (3) through the use of services offered for resale by the incumbent. Under each of these three entry strategies, a new entrant must rely, to varying levels of degree, on the incumbent in order to be able to offer services to end user customers in a competitive manner. In effect, incumbents must act as wholesale providers of the services and facilities needed to facilitate each of the three modes of entry. Unlike many traditional wholesale/retail relationships, however, in this case, the wholesaler is both the retailer's sole supplier and its biggest competitor.

2. Recognizing the unique relationship established by the 1996 Act, Congress imposed certain requirements on incumbent carriers to ensure that new entrants received the necessary services and facilities. Specifically, Congress required incumbents to make available to new entrants in a nondiscriminatory and just and reasonable manner the services and facilities the incumbents use to provide retail services to their own customers.² In order to take advantage of the service and facility offerings that Congress requires incumbents to provide, new entrants need access to the support functions that incumbents use to process orders from their own customers.

3. In this proceeding, we propose a methodology by which to analyze whether new providers of local telephone service are able to access, among other things, the support functions (that is, the functions provided by computer systems, databases, and personnel) of incumbent local telephone companies in a nondiscriminatory and just and reasonable manner consistent with the 1996 Act's requirements. Access to these support functions enable new entrants to communicate effectively with the incumbent local carrier regarding such basic activities as placing orders or providing repair service for customers. These support functions are crucial to new entrants' ability to compete effectively in the market for local telephone service. To this end, we seek comment, as explained below, on certain proposed measurements and reports designed to illuminate the performance of incumbent local

¹ The Telecommunications Act of 1996 (1996 Act), Pub. L. No. 104-104, 110 Stat 56, *codified at* 47 U.S.C. §§ 151 *et. seq.*, amended the Communications Act of 1934 (Communications Act or Act).

² See 47 U.S.C. § 251(c)(3) (requiring incumbent carriers to provide "nondiscriminatory access to unbundled network elements on an unbundled basis at any technically feasible point on rates, terms, and conditions that are just, reasonable, and nondiscriminatory . . ."); and 47 U.S.C. § 251(c)(4) (barring incumbent carriers from imposing "unreasonable or discriminatory conditions or limitations" on the resale of retail services).

telephone companies in providing access to these vital support functions. Such performance measurements will assist incumbents, new entrants, and regulators in evaluating an incumbent's performance in meeting its statutory obligations. We do not, however, propose specific performance standards or technical standards. We also seek comment on ways to achieve the statutory goals, while also minimizing the burden on all incumbent carriers, especially small, rural, and mid-sized incumbent local telephone companies.

4. We recognize that some state commissions have undertaken efforts to develop performance measurements and reporting requirements to evaluate the access an incumbent provides to its support functions. Other states have yet to begin such efforts, but plan to do so. These states have sought this Commission's help in developing these measurements.³ The primary goal of this Notice, therefore, is to provide guidance, in the most efficient and expeditious manner possible, to the states and the industry on a set of performance measurements and reporting requirements that will help spur the development of local competition. Accordingly, we propose, in the first instance, to adopt model performance measures and reporting requirements, as described in detail herein, that are not legally binding. This approach will allow those states that have commenced proceedings to incorporate the model performance measurements and reporting requirements as they deem beneficial and aid those states that have not begun work in this area. We expect to develop such model performance measurements and reporting requirements as expeditiously as possible once the record closes in this proceeding. The experience we gain from the development of these model performance measurements and reporting requirements and their application by the states will, we believe, provide a more informed and comprehensive record upon which to decide whether to adopt national, legally binding rules. The adoption of national rules may, however, prove to be unnecessary in light of the states' and carriers' application of the model performance measurements and reporting requirements that we intend to adopt in the first instance. We emphasize our belief that the adoption of model performance measurements and reporting requirements to serve as guidelines for state commissions constitutes the most efficient and effective role for the Commission in this area at this time.

5. We believe that the proposals we make in this Notice follow a common sense approach to promoting competition in the local exchange market. The establishment of a set of performance measurements should bring benefits to both new entrants and incumbents by establishing an objective manner through which an incumbent's compliance with its statutory obligations can be observed on a regular basis. New entrants will have access to the type of information that will enable them to monitor an incumbent's performance in fulfilling its statutory obligation as a provider of services and elements to competing carriers. Incumbents, on the other hand, will be able to use the performance measurements as evidence of compliance with their relevant statutory obligations in order to counter allegations of

³ See NARUC Convention Floor Resolution No. 5, "Operations Support Systems Performance Standards" (adopted by the Exec. Comm. on Nov. 11, 1997) (NARUC Resolution).

noncompliance. Moreover, by proceeding in the first instance with model performance measurements and reporting requirements, we maximize state flexibility while at the same time providing needed, and requested, guidance in a complicated area.

II. BACKGROUND

A. Purpose of This Proceeding

6. Prior to passage of the Telecommunications Act of 1996, incumbent local exchange carriers (incumbent LECs), functioning as government-sanctioned monopolies, faced virtually no competition in the provision of local telephone service. Through the 1996 Act, Congress sought to give consumers a choice of local telephone service providers by permitting new competitors to enter the local market.

7. The 1996 Act imposes various duties on incumbent local telephone companies to enable new competitors to enter the local market without necessarily having to build redundant physical networks. These duties include, among other things, the duty to provide new entrants with access to individual elements of the incumbents' networks to be used in combination with the new entrants' own facilities or other elements from the incumbents' networks. In addition, incumbent LECs must offer to new entrants at wholesale rates any telecommunications service provided by the incumbents on a retail basis.⁴ In this manner, the 1996 Act requires incumbent local telephone companies to serve as wholesale providers of network elements and services to new entrants, which new entrants can utilize to compete against the incumbent carrier to provide retail local service to end users. By enabling competing carriers to enter the local markets through resale of the incumbent's services, or by use of the incumbent's network elements, Congress provided the means for developing local competition much sooner than would occur if competing carriers were required to build redundant local telecommunications facilities, although Congress also encouraged the latter mode of entry.⁵

8. In a competitive wholesale market, because buyers are able to choose freely between wholesale suppliers, market forces furnish wholesalers with the necessary incentive to provide quality service to their buyers. As the single supplier of wholesale facilities and services to competing carriers in the local market, incumbent carriers have no such incentive, especially given the fact that the purchasers of their wholesale offerings are also their retail competitors. Congress recognized this tension and, therefore, required incumbents to provide services and facilities in a nondiscriminatory manner and on a just and reasonable basis through sections 251(c)(3) and (4) of the 1996 Act. These provisions of the Act are designed to prevent incumbent carriers from providing services and facilities in a manner that favors

⁴ See 47 U.S.C. §§ 251(c)(3)-(4).

⁵ See Joint Statement of Managers, S. Conf. Rep. No. 104-230, 104th Cong., 2d Sess. 148 (1996) (Joint Explanatory Statement).

their own retail operations over competing carriers, or in a manner that favors certain competing carriers over others. Under section 251(c)(3), incumbents must provide unbundled network elements under terms and conditions that are nondiscriminatory, and just and reasonable.⁶ Under section 251(c)(4), incumbents must offer resold services without imposing any limitations or conditions that are discriminatory or unreasonable.⁷ In the *Local Competition Order*, the Commission determined that the term "nondiscriminatory," as used throughout section 251 of the Act, requires an equivalency between the terms and conditions an incumbent imposes on itself and third parties.⁸ In addition to the nondiscrimination requirement, the Commission determined that the terms "just" and "reasonable" require incumbents to "provide an efficient competitor with a meaningful opportunity to compete."⁹

9. The primary focus of this proceeding is on the operations support systems, or OSS, that an incumbent carrier uses to provide service to its end user customers. Specifically, the term OSS refers to the computer systems, databases, and personnel that incumbent carriers rely upon to discharge many internal functions necessary to provide service to their customers. Thorough understanding of OSS involves a number of complex and technical matters. Nondiscriminatory access to the OSS functions, however, rests on a fairly straightforward concept: efficient and effective communication between the retail service provider (*i.e.*, the new competitor) and the wholesale provider (*i.e.*, the incumbent carrier). By "efficient and effective communication," we mean that the competing carrier must be able to access the customer data necessary to sign up customers, place an order for services or facilities with the incumbent, track the progress of that order to completion, receive relevant billing information from the incumbent, and obtain prompt repair and maintenance for the elements and services it obtains from the incumbent.

10. To ensure efficient and effective communication between incumbents and competing carriers, competing carriers must obtain access to the same OSS functions (that is, functions provided by the relevant databases, computer systems, and personnel) that incumbent LECs use to provide retail services to their own customers. The databases contain

⁶ 47 U.S.C. § 251(c)(3).

⁷ 47 U.S.C. § 251(c)(4).

⁸ See *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC Docket No. 96-98, First Report and Order, 11 FCC Rcd 15499, 15612, 15658, ¶¶ 218, 312 (1996) (*Local Competition First Report and Order*), *aff'd in part and vacated in part sub nom. Competitive Telecommunications Ass'n v. FCC*, 117 F.3d 1068 (8th Cir. 1997) and *Iowa Utilities Bd. v. FCC*, 120 F.3d 753 (8th Cir. 1997), *writ of mandamus issued sub nom. Iowa Utilities Bd. v. FCC*, No. 96-3321 (8th Cir. Jan. 22, 1998), *petition for cert. granted*, Nos. 97-826, 97-829, 97-830, 97-831, 97-1075, 97-1087, 97-1099, and 97-1141 (U.S. Jan. 26, 1998) (collectively, *Iowa Utils. Bd.*), Order on Reconsideration, 11 FCC Rcd 13042 (1996), Second Order on Reconsideration, 11 FCC Rcd 19738 (1996), Third Order on Reconsideration and Further Notice of Proposed Rulemaking, FCC 97-295 (rel. Aug. 18, 1997), *further recons. pending*.

⁹ *Local Competition First Report and Order*, 11 FCC Rcd at 15660, ¶ 315.

information, such as the types of telecommunications services that are available to customers, address verification, telephone number availability, available dates for installation of services, and other key items of information necessary to formulate and process a customer's order for service. The customer representatives of incumbent LECs generally have immediate, electronic access to these databases which enables them to formulate and submit orders, often while customers are on the line. Various systems and databases have also been developed to resolve customer complaints about service and to ensure accurate and timely billing. Competing carriers are dependent on the incumbent carrier for the processing of their orders and for repair and maintenance services.

11. In addition to efficient and effective access to OSS, a carrier's opportunity to compete is also reliant upon its ability to interconnect its network with the incumbent's network. Such interconnection allows customers on one network to call customers on another network. If a competing carrier's customers cannot receive calls, or if their calls cannot be completed because the incumbent has not provided adequate interconnection, then the competing carrier's ability to serve its customers is substantially hindered.¹⁰ Recognizing the importance of interconnection, Congress required incumbent LECs to provide a level of interconnection to competing carriers that is indistinguishable and at least equal in quality to that provided by the local exchange carrier to itself.¹¹

12. Additionally, as noted above, Congress also required incumbent LECs to make network elements available to competing carriers on an unbundled basis. Pursuant to its statutory authority, the Commission identified operator services and directory assistance (OS/DA) as network elements that must be provided on an unbundled basis.¹² The Commission has previously found that operator services¹³ and directory assistance¹⁴ are key network elements that incumbent carriers must provide to competing carriers on a nondiscriminatory basis.¹⁵ This is because customer perception can be shaped by perceived

¹⁰ See 47 U.S.C. § 251(c)(2) (establishing an incumbent LEC's duty to interconnect).

¹¹ See *Local Competition First Report and Order*, 11 FCC Rcd at 15614-15, ¶ 224; 47 U.S.C. § 251(c)(2)(C).

¹² See 47 U.S.C. § 251(d)(2).

¹³ Operator services include services which need the assistance of an operator, such as collect calls, third party billed calls, and person-to-person calls. *Newton's Telecom Dictionary*, 11th Edition at 435 (1996).

¹⁴ Directory assistance allows subscribers to retrieve telephone numbers of other subscribers from the local telephone service provider. *Newton's Telecom Dictionary*, 11th Edition at 188 (1996).

¹⁵ *Local Competition First Report and Order* at 15771-72, ¶ 534. The Commission concluded that both the facilities (e.g., operators) and functionalities (e.g., the directory assistance database) used to provide operator services and directory assistance must be provided by an incumbent LEC on an unbundled basis. *Id.* at 15771-15774, ¶¶ 534-538.

disparities in the quality of access to OS/DA services provided by a competing carrier or an incumbent carrier.

13. Mandating nondiscriminatory access, however, is not the same thing as achieving it in practice. A number of competing carriers have submitted anecdotal evidence suggesting that incumbent LECs may not be providing nondiscriminatory access to OSS functions and interconnection consistent with the statutory requirements.¹⁶ Many of these carriers also have emphasized that it is frequently difficult to resolve disputes regarding nondiscriminatory access, because the incumbent LECs do not report on the time and manner in which they process orders for their own retail customers. We note as well that the Commission has denied three of the applications filed by Bell Operating Companies (BOCs) under section 271 of the Act to provide in-region, interLATA service, in part because of the BOCs' failure to demonstrate that they provide nondiscriminatory access to their OSS functions.¹⁷

14. We believe that the establishment of model performance measurements and reporting requirements will promote the goal of efficient and effective communication between competing carriers and incumbent LECs, while also reducing the need for regulatory oversight in this area. Performance measurements and reporting requirements should make much more transparent, or observable, the extent to which an incumbent LEC is providing nondiscriminatory access, because such requirements will permit direct comparisons between the incumbent's performance in serving its own retail customers and its performance in providing service to competing carriers. We recognize that the modification of an incumbent LEC's internal operations support systems to accommodate the needs of the new wholesale "customers" is a substantial undertaking. Nevertheless, we believe that it is often the lack of adequate information about the performance of an incumbent LEC's OSS that has led to

¹⁶ See, e.g., LCI Petition at 36, 50, 52, 57, 61, and 74; ACSI Comments at 4; ATX Reply Comments at 2-3; CompTel Reply Comments at 21-22 (summarizing problems noted by competing carriers); GST Comments at 8-9; KMC Comments at 2-3; MCI Comments at 5; WinStar Comments at 4-6.

¹⁷ See *Application of Ameritech Michigan Pursuant to Section 271 of the Communications Act of 1934, as amended, to Provide In-Region, InterLATA Services in Michigan*, CC Docket No. 97-137, Memorandum Opinion and Order, 12 FCC Rcd 20543 (1997) (*Ameritech Michigan 271 Order*); *Application of BellSouth Corp., et al. Pursuant to Section 271 of the Communications Act of 1934, as amended, To Provide In-Region, InterLATA Services in South Carolina*, CC Docket No. 97-208, Memorandum Opinion and Order, FCC 97-418 (rel. Dec. 24, 1997) (*BellSouth South Carolina 271 Order*); *Application by BellSouth Corp., et al Pursuant to Section 271 of the Communications Act of 1934, as amended, To Provide In-Region, InterLATA Services in Louisiana*, CC Docket No. 97-231, Memorandum Opinion and Order, FCC 98-17 (rel. Feb. 4, 1998) (*BellSouth Louisiana 271 Order*). Section 271 of the 1996 Act bars all Bell Operating Companies (BOCs) from providing in-region, interLATA services until they demonstrate that: (1) they are providing access to a facilities-based competing provider of telephone exchange service, with limited exceptions, in accordance with section 271(c)(1); (2) they are complying with the fourteen point competitive checklist contained in section 271(c)(2)(B); (3) they are complying with the separate affiliate safeguards contained in section 272; and (4) their entry into the in-region, interLATA market "is consistent with the public interest, convenience, and necessity." 47 U.S.C. § 271(d)(3); see *SBC Communications Inc. v. FCC*, No. 97-1425, slip op. at 6 & n. 5 (D.C. Cir. March 20, 1998).

disputes, and, therefore, performance monitoring reports will help to fill the current gap in everyone's knowledge about how the incumbent LECs' internal processes operate with respect to their own customers and the competing carriers.

15. We also believe performance measurements and reporting requirements will provide an important incentive for incumbent LECs to comply with the statutory nondiscrimination and just and reasonable requirements because competing carriers will have access to information detailing an incumbent LEC's performance. Because this access to information increases the risk of detecting statutory violations, incumbents will have an additional incentive to meet the statutory requirements. In a competitive environment, market forces will tend to ensure that wholesalers provide quality service to their buyers. Here, where competition is largely absent, performance measurements and reporting requirements may increase incumbent LECs' incentive to comply with their statutory obligations.

16. Performance monitoring reports should also reduce the need for regulatory oversight by encouraging self-policing among carriers. In the first instance, incumbent LECs can review the performance reports and correct any deficiencies in their performance that they detect. Additionally, competing carriers can review the performance reports and assess whether they indicate possible statutory violations. Competing carriers can then use this information as a basis for discussion with the incumbents to resolve performance disputes. Should resort to the complaint process become necessary, the information contained in these performance monitoring reports can facilitate timely and fair resolution of the complaints.

17. In sum, we seek in this proceeding to promote efficient competition between incumbent carriers and new entrants by exploring methods designed to measure the performance of incumbent carriers in providing access to OSS functions. Likewise, we consider establishing model reporting requirements to enable new entrants to verify that they are receiving the nondiscriminatory access mandated by the statute. We believe that the proposals outlined below will enable new entrants to detect and deter violations and provide incumbent LECs with an important incentive to comply with their statutory obligations, while also minimizing the burdens on incumbent LECs. We emphasize, however, that we do not propose performance or technical standards in this area, preferring instead to rely in the first instance on the industry standard-setting process and contractual arrangements between private parties.

18. We underscore that "performance measurements" and "reporting requirements" are quite different from "performance standards" and "technical standards." In this Notice, we use the term "performance measurements" to refer to the measures used to collect data regarding an incumbent carrier's performance, such as the period of time it takes to order and provision a resold service. Likewise, we use the term "reporting requirements" to refer to the incumbent LEC's obligation to collect performance measurements and provide the results of those measurements to other parties. On the other hand, we use the term "performance standards" to refer to specific performance goals or benchmarks, such as a requirement that an incumbent LEC complete a resale order for residential service within a specified period of

time. Finally, we use the term "technical standards" to refer to the establishment of industry-wide OSS interface specifications.

B. Procedural History

19. On May 30, 1997, LCI International Telecom Corp. (LCI) and the Competitive Telecommunications Association (CompTel) jointly filed a petition asking the Commission to initiate a rulemaking proceeding ("LCI/CompTel Petition") concerning the requirements governing OSS, interconnection, and other related activities established by the Commission in its *Local Competition First Report and Order*.¹⁸ On June 10, 1997, the Commission issued a Public Notice seeking comment on the LCI/CompTel petition.¹⁹ A number of parties, including both incumbent LECs and competing carriers, filed comments and reply comments in response to this Public Notice.²⁰

20. Among other things, petitioners ask the Commission to establish: (1) performance measurements and reporting requirements for the provision of OSS functions; (2) default performance standards or benchmarks that would apply when an incumbent LEC fails, or refuses, to report on its performance; (3) technical standards for OSS interfaces if industry fora fail to adopt standards for OSS interfaces by a date certain;²¹ and (4) remedial provisions that would apply to non-compliant incumbent LECs. In their petition, LCI/CompTel propose that the Commission rely on the Service Quality Measurements adopted by the Local Competition Users Group (LCUG) as the basis for establishing performance measurements, reporting requirements, and default performance standards.²² On October 8, 1997, LCUG filed a revised proposal that described in greater detail its proposed performance measurements and default standards.²³ A number of parties filed additional *ex parte*

¹⁸ *Local Competition First Report and Order*, 11 FCC Rcd at 15808, ¶ 611.

¹⁹ *Comments Requested on Petition for Expedited Rulemaking to Establish Reporting Requirements and Performance and Technical Standards for Operations Support Systems*, Public Notice, DA No. 97-1211 (rel. June 10, 1997) (*June 10th Public Notice*).

²⁰ See *infra* Appendix C for list of commenters.

²¹ LCI Comments at 7 and CompTel Comments at 8.

²² LCUG is comprised of AT&T, Sprint, MCI, LCI, and WorldCom.

²³ LCUG, Service Quality Measurements, Version 6.1 (filed October 8, 1997) (LCUG proposal) (available at <http://www.fcc.gov/ccb>).

comments, offering their own proposed measurements and addressing the specific recommendations made by LCUG in its revised proposal.²⁴

C. Summary of Proposals

21. In this Notice, we tentatively conclude that we should propose model performance measurements and reporting requirements for OSS functions, interconnection, and access to operator services and directory assistance. In Part III, we discuss the respective roles of the Commission and the states with regard to the development and implementation of model rules, as well as with respect to the establishment of legally binding rules. In Part IV, we set forth proposed performance measurements. In Part V, we discuss reporting procedures, and in Part VI we propose methods to evaluate performance measurements. As explained in Part VII, we conclude that we will not address at this time several points raised in the LCI/CompTel petition, such as the establishment of national performance standards, technical standards, and enforcement mechanisms. In addition, we recognize that the proposals set forth in this Notice may disproportionately impact small, rural, and midsize incumbent LECs. Consequently, in Part VIII we also seek comment on the potential burdens that our proposed model rules could impose on these incumbent LECs and we seek comment on possible remedies. Finally, Appendix A contains a chart that presents in summary fashion each of the performance measurements we propose in this Notice and Appendix B contains a detailed discussion of possible statistical techniques that could be used in evaluating performance measurements.

III. ROLE OF COMMISSION AND STATES

22. As noted above, LCI and CompTel petitioned the Commission to initiate a rulemaking to promulgate performance measurements and reporting requirements. States as well have urged us to assist them in developing these measurements. Indeed, NARUC passed a resolution seeking such assistance. It states in pertinent part:

RESOLVED: That the FCC be urged to move promptly to advance the establishment of performance guidelines that can be used to evaluate the provision of access to the components of OSS functions. . . .²⁵

²⁴ See, e.g., Letter from Robert Blau, BellSouth, to William F. Caton, Acting Secretary, FCC (filed Nov. 3, 1997) (BellSouth Nov. 3 *Ex Parte*); Letter from Dee May, Bell Atlantic, to William F. Caton, Acting Secretary, FCC (filed Nov. 20, 1997) (Bell Atlantic Nov. 20 *Ex Parte*); Letter from Lynn Starr, Ameritech, to Magalie Roman Salas, Secretary, FCC (filed Nov. 18, 1997) (Ameritech Nov. 18 *Ex Parte*); Letter from Anne MacClintock, SNET, to William F. Caton, Acting Secretary, FCC (filed Oct. 31, 1997) (SNET Oct. 31 *Ex Parte*); Letter from Richard J. Metzger, Association for Local Telecommunications Services (ALTS), to Magalie Roman Salas, FCC (filed Jan. 14, 1998) (ALTS Jan. 14 *Ex Parte*).

²⁵ See NARUC Resolution.

Individual states have also begun work in this area. For example, California and New York have initiated proceedings to develop OSS requirements, including performance measurements and reporting requirements.²⁶

23. The primary goal of this notice is to provide the requested guidance to the states in the most efficient and expeditious manner possible. Accordingly, we intend, in the first instance, to adopt a set of model performance measurements and reporting requirements, based on the detailed descriptions provided herein and subject to whatever modifications we deem appropriate in light of comments received. These model performance measurements and reporting requirements would not be legally binding. This approach will maximize state flexibility, by allowing those states that have begun the process of developing performance measurements and reporting requirements to continue their work and incorporate the model rules to the extent they deem appropriate, while providing a comprehensive set of measurements that can be adopted by those states that have yet to begin the process. Our intent is to promulgate the model performance measurements and reporting requirements, based on the proposals described in detail below, as expeditiously as possible. It is also our hope and expectation that states will adopt performance measurements and reporting requirements and that the guidance we provide through this process will enable them to do so quickly.²⁷ We believe that prompt implementation of performance measurements and reporting requirements consistent with those proposed in this Notice will spur the development of local competition.

24. The experience we gain from the development of the model performance measures and reporting requirements and their application by the states will, we believe, provide useful and important information that will enable us to decide whether to adopt national, legally binding rules in this area. The adoption of national, legally binding rules may prove unnecessary, however, in light of the states' and carriers' application of the model performance measurements and reporting requirements we propose to adopt in the first

²⁶ See Order Instituting Rulemaking on the Commission's Own Motion into Monitoring Performance of Operations Support Systems, R 97-10-016, and Order Instituting Investigation on the Commission's Own Motion into Monitoring Performance of Operations Support Systems, I 97-10-017 (filed California Public Utilities Commission, Oct. 9, 1997); see also *In the Matter of Petition of New York Telephone Company for Approval of Its Statement of Generally Available Terms and Conditions Pursuant to Section 252 of the Telecommunications Act of 1996 and Draft Filing of Petition for InterLATA Entry Pursuant to Section 271 of the Telecommunications Act of 1996*, Case 97-C-0271 (State of New York Public Service Commission).

²⁷ Although we recognize that state commissions may have specific concerns regarding particular performance measurements, we believe that the adoption of a common set of guidelines may benefit incumbent LECs that have deployed regionwide systems to comply with their OSS obligations. For example, the California Commission indicates that, since most incumbent LECs' OSS functions are provided through centralized facilities serving multiple states, the establishment of broad federal reporting requirements, in coordination with state input, would reduce the likelihood of states developing conflicting OSS regulations. Comments of the People of California and Public Utilities Commission of the State of California for Expedited Operations Support Systems Rulemaking (California Commission Comments) at 7-8.

instance. We underscore, however, that we have no intention to issue binding rules in the first instance.

25. We recognize that parties in this proceeding have offered differing opinions concerning our jurisdiction to issue OSS rules. Some have argued that the Eighth Circuit's decision in *Iowa Utilities v. FCC*²⁸ would preclude our authority to establish rules relating to OSS, while others have argued, to the contrary, that portions of that decision would validate our authority to issue such rules.²⁹ We invite parties to comment on this issue. Given that our primary goal is to provide guidance to states through the adoption of model rules in the first instance, however, we strongly encourage parties to focus on the substance of the proposed performance measurements and reporting requirements described below, rather than focusing exclusively on issues of jurisdiction. We have attempted to describe these measurements and reporting requirements in detail in order to maximize the development of a useful record and provide as much guidance to the states as possible.

26. We intend to work with state commissions in developing model performance measurements and reporting requirements. We applaud the efforts states have undertaken thus far to develop performance measurements and reporting requirements and strongly encourage states to continue this work. It is not our intent in this proceeding to undermine the work states have done in this area, but rather to build upon it and inform it, where necessary and helpful. We also encourage carriers to continue working with the state commissions on developing a set of performance measurements and reporting requirements. We encourage states filing comments in this proceeding to highlight any performance measurements or reporting requirements that they have adopted or are currently considering in their proceedings that they believe should be part of the model rules.

²⁸ *Iowa Utilities v. FCC*, 120 F.3d 753 (8th Cir. 1997). See *supra* note 9.

²⁹ Several incumbent LECs argued that the *Iowa Utilities Bd.* decision bars Commission action in this area. See, e.g., Bell Atlantic/NYNEX Reply at 5 (Eighth Circuit did not recognize Commission's authority to establish performance measurements or standards for OSS, which is an intrastate function); BellSouth Reply at 3-5 (Commission cannot establish standards for interconnection agreements because Eighth Circuit held that state commissions retained primary authority to enforce substantive terms of agreements made pursuant to sections 251 and 252); USTA Reply at 5 (same). A number of competing carriers, however, disagreed that the Commission's authority in this area was limited by the Eighth Circuit's decision. See, e.g., ALTS Reply at 4 (Eighth Circuit recognized Commission's jurisdiction to issue rules related to unbundled network elements, such as OSS); Sprint Reply at 5 (same); MCI Reply at 12-13 n. 9 (same); AT&T Reply at 3 (Eighth Circuit affirmed Commission's authority to issue rules regarding resold services).

IV. PROPOSED PERFORMANCE MEASUREMENTS AND REPORTING REQUIREMENTS

A. General Issues

27. In this section, we propose performance measurements for each of the five OSS functions, as well as for interconnection and OS/DA. These measurements are intended to permit a direct assessment of whether an incumbent LEC is complying with its obligations under section 251.³⁰

28. In the *Local Competition First Report and Order*, the Commission determined that, because OSS includes the information necessary to obtain other network elements or resold services, providing access to OSS functions falls squarely within an incumbent LEC's duty under section 251(c)(3) to provide unbundled network elements under terms and conditions that are nondiscriminatory and just and reasonable, and its duty under section 251(c)(4) to offer resale services without imposing any limitations or conditions that are discriminatory or unreasonable.³¹ Additionally, the Commission identified OSS itself as a network element and stated that it consisted of five functions: (1) pre-ordering; (2) ordering; (3) provisioning; (4) maintenance and repair; and (5) billing.³² The Commission concluded that, as with all unbundled network elements, an incumbent LEC must provide access to these five OSS functions that is equivalent to what it provides itself, its own end-user customers, or other carriers.³³

29. As a practical matter, for those OSS functions provided to competing carriers that are analogous to OSS functions that an incumbent LEC provides itself in connection with retail service offerings, the incumbent LEC must provide access to competing carriers that is equivalent to the level of access that the incumbent LEC provides itself in terms of quality, accuracy, and timeliness. Thus, for example, for those functions that an incumbent LEC itself accesses electronically, the incumbent LEC must provide electronic access for competing carriers.³⁴ In addition, competing carriers must have access to OSS functions that allows them to make use of such functions in "substantially the same time and manner" as the incumbent

³⁰ See *infra* ¶¶ 28, 29, 30, describing the obligations under § 251(c)(2), (3) and (4).

³¹ *Local Competition First Report and Order*, 11 FCC Rcd at 15763, ¶ 517.

³² *Id.*, 11 FCC Rcd at 15660-61, 15763, ¶¶ 316, 516-17; 47 C.F.R. § 51.319(f). The Commission's determination that OSS is an unbundled network element was upheld by the Eighth Circuit. See *Iowa Utilities Bd.*, 120 F.3d at 809.

³³ See, e.g., *Local Competition First Report and Order*, 11 FCC Rcd at 15766, ¶ 523.

³⁴ *Id.*

LEC.³⁵ For those OSS functions that have no direct retail analog, such as the ordering and provisioning of unbundled network elements, an incumbent LEC must provide access sufficient to allow an efficient competitor a meaningful opportunity to compete.³⁶

30. With respect to interconnection, the Commission concluded that "section 251(c)(2)(C) requires an incumbent LEC to provide interconnection between its network and that of a requesting carrier at a level of quality that is at least indistinguishable from that which the incumbent provides itself, a subsidiary, an affiliate, or any other party."³⁷ Finally, incumbent LECs are obligated under section 251(c)(3) to provide nondiscriminatory access to operator services and directory assistance because they are network elements.³⁸

31. The measurements we propose in this Notice are designed to assist in assessing an incumbent LEC's performance in providing OSS, interconnection, and OS/DA to competing carriers. Various parties presented proposals for performance measurements in this proceeding.³⁹ We conclude, however, that no single proposal optimally balances our goals of detecting possible instances of discrimination while minimizing, to the extent possible, burdens imposed on incumbent LECs. We therefore propose a set of measurements that we believe provides an appropriate balance of these goals. We seek to limit the burden on incumbent LECs by minimizing the levels of disaggregation for reporting purposes.⁴⁰ We have also chosen not to propose measurements that we believe may be particularly burdensome on incumbent LECs. For example, we are not proposing that incumbent LECs measure certain aspects of network performance.⁴¹

32. With regard to OSS, the proposed measurements attempt to capture an incumbent LEC's performance during each of the critical stages of processing and servicing a

³⁵ *Id.*, 11 FCC Rcd at 15763-64, ¶ 518.

³⁶ *Id.*, 11 FCC Rcd at 15660, ¶ 315.

³⁷ *Id.*, 11 FCC Rcd at 15614, ¶ 224. The Commission further concluded that "this duty requires incumbent LECs to design interconnection facilities to meet the same technical criteria and service standards, such as probability of blocking in peak hours and transmission standards, that are used within their own networks." *Id.*

³⁸ The Commission identified operator services and directory assistance as unbundled network elements. *Id.*, 11 FCC Rcd at 15771, ¶ 534; 47 C.F.R. § 51.319(g). The Eighth Circuit upheld the Commission's determination that operator services and directory assistance must be made available as unbundled network elements. *See Iowa Utilities Bd.*, 120 F.3d at 809.

³⁹ *See, e.g.*, LCUG proposal; ALTS Jan. 14 *Ex Parte*; Letter from Amy G. Zirkle, MCI, to William F. Caton, Acting Secretary, FCC (filed Oct. 23, 1997) (MCI Oct. 23 *Ex Parte*); Ameritech Nov. 18 *Ex Parte*; Bell Atlantic Nov. 20 *Ex Parte*.

⁴⁰ *See infra* Part IV.B.2.a. and note 68 discussing greater levels of disaggregation proposed by LCUG.

⁴¹ *See* LCUG proposal at 51-55 (describing proposed network performance measurements).

competing carrier's order. In proposing these measurements, we seek to gauge an incumbent LEC's ability to provision the five OSS functions to competing carriers in terms of timeliness, quality, and accuracy. We thus begin with a measurement of the time it takes a competing carrier to access the incumbent's databases that are necessary for the competing carrier to formulate an order (*i.e.*, the pre-ordering measurement). We next propose a series of measurements that will assess how efficiently the incumbent processes that order once transmitted from the competing carrier to the incumbent LEC (*i.e.*, the order completion measurements, the average time for customer conversion measurement, the average interval for held orders measurement, and the installation troubles measurement). We also propose to measure an incumbent LEC's ability to deliver order status information to competing carriers in a timely manner (*i.e.*, the order status measurements). Additionally, we propose two measurements that attempt to gauge the efficiency of an incumbent LEC's electronic ordering systems (*i.e.*, the ordering quality measurements). We then propose measurements to determine how proficiently the incumbent LEC performs its responsibility to address and correct repair and maintenance problems encountered by the competing carrier's customers. Finally, we propose to gauge an incumbent LEC's ability to render timely billing information to the competing carrier so that the competing carrier can in turn bill its customers. In addition to proposing OSS-related measurements, we also propose measurements to gauge an incumbent LEC's performance in providing interconnection and OS/DA to competing carriers. We believe that the measurements proposed in this Notice collectively will provide an accurate assessment of an incumbent LEC's overall performance in undertaking its role as a wholesale provider of network elements and services as contemplated by Congress.

33. We discuss the basis for proposing each of these measurements below. In addition, commenters should refer to Appendix A while reading this portion of the Notice. Appendix A proposes a formula for calculating each measurement, the levels of disaggregation for each measurement (*i.e.*, the categories that incumbent LECs should use to break out the data), and any exceptions to the measurement. Where the measurements or exceptions are self-explanatory, we simply refer to Appendix A. Where a measurement or exception requires explanation, however, we provide further clarification or explanation in this section.

34. We recognize that reporting averages of performance measurements alone, without further analysis, may not reveal whether there are underlying differences in the way incumbent LECs treat their own retail operations in relation to the way they treat competing carriers. Consequently, we propose, as part of the model rules proposed herein, the use of statistical tests to determine whether measured differences in the average performance of incumbent LECs toward their retail customers and toward competing carriers represent true differences in behavior rather than random chance.⁴² Further, we recognize that reporting on averages alone may mask potential forms of discrimination. For example, an incumbent LEC may have the same average completion interval in providing service to competing carriers as

⁴² See *infra* Part VI and Appendix B regarding the use of statistical analysis.

it has in providing service to its retail customers, but the variation in completion intervals in providing the service may differ greatly. It may be the case, for instance, that the average completion interval is four days for both competing carriers and the incumbent's retail customers, but half of the competing carriers' orders are completed in one day and half in seven days, while all of the retail customers' orders are completed in exactly four days. For this reason, we seek comment below on the possible use of statistical tests that capture differences in variances between two samples as well as tests of differences in averages. We also seek comment below on whether, as part of the model rules proposed herein, the data underlying the performance measurement results should be made available to competing carriers so that they can evaluate the incumbent LECs' performance in other ways if they choose to do so.⁴³

35. Before describing the individual performance measurements, however, we seek comment on a number of general issues that pertain to all performance measurements. These general issues concern: 1) the appropriate balance between the burdens and benefits associated with performance measurements and reporting requirements; 2) the appropriate geographic level for reporting; 3) the scope of activities that incumbent LECs should report; and 4) the relevant electronic interfaces for purposes of reporting the measurements described below.

1. Balance Between Burdens and Benefits

36. Our goal in developing performance measurements, and the associated level of detail, is to isolate the activities in which an incumbent could discriminate when providing services and facilities to competing carriers. We believe that persistent discrimination by an incumbent LEC in any of the activities for which we have proposed performance measurements potentially would undermine a competing carrier's prospects for success in the local market. At the same time, as we have noted previously, although we believe that performance measurements and reporting requirements will help foster competition in the local exchange market, compliance with performance measurements and reporting requirements imposes certain burdens on incumbent LECs. In developing our proposed performance measurements and reporting requirements, we have sought to balance our goal of detecting possible instances of discrimination with our goal of minimizing, to the extent possible, burdens imposed on incumbent LECs. As a general matter, we seek comment on whether our proposed measurements described below appropriately balance these twin goals. Specifically, we seek comment on whether the difficulties in obtaining and collecting information for a particular measurement outweigh the benefits associated with reporting this information. We request that parties identify those measurements, if any, in which a substitute approach would capture similar information but would be less burdensome than our proposed measurement. We also seek comment on whether additional measurements are necessary to detect discrimination or whether fewer measurements would capture sufficient information while imposing less burden on incumbent LECs.

⁴³ See *infra* Part V.C. and Appendix B regarding access to data underlying performance measurements.

37. Additionally, we ask parties to comment generally on the level of detail contained in the proposed performance measurements. As discussed above, we tentatively conclude that the model performance measurements we ultimately adopt should contain a level of detail sufficient for states or carriers to use them without requiring further supplementation or modification. Many competing carriers and incumbent LECs differ, however, over particular details in measuring performance, such as the levels of disaggregation required to make the measurements meaningful. By proposing detailed measurements, we hope to resolve potential areas of dispute between negotiating carriers. Finally, we believe that only detailed performance measurements will ensure that incumbent LECs collect appropriate data and disaggregate the data in a manner that permits meaningful comparisons between the incumbent LEC's own operations and those of competing carriers. We seek comment on whether the performance measurements we propose in this Notice are sufficiently detailed to ensure the collection of meaningful data, or whether greater detail or disaggregation is necessary or whether lesser detail or disaggregation would be sufficient.

2. Geographic Level for Reporting

38. We seek comment on the appropriate geographic level of reporting. We note that several competing carriers recommend a reporting level based on relatively small geographic areas, such as local access and transport areas (LATAs) or on a market-by-market basis.⁴⁴ We seek comment on this issue. In particular, we seek comment on whether carriers should report data for each performance measurement based on state boundaries, LATAs, metropolitan statistical areas (MSAs),⁴⁵ or some other relevant geographic area. We ask parties to explain how their recommendations fulfill our twin goals of ensuring meaningful results while minimizing reporting burdens on incumbent LECs. We also seek comment on whether a uniform geographic level of reporting should apply to all performance measurements, or whether it would be appropriate to require different levels of reporting for separate measurements.

3. Scope of Reporting

39. We believe that, when an incumbent LEC reports the results of the performance measurements, it must do so in a manner that permits a competing carrier to compare the access the incumbent LEC provides to the carrier and other competing carriers with the access

⁴⁴ See, e.g., Sprint Comments at 11 (performance should be reported by the geographic divisions used by the incumbent LEC, such as a LATA); WorldCom Comments at 9 (performance should be reported on a market-by-market basis).

⁴⁵ A "metropolitan statistical area" is defined by the U.S. Census Bureau as a city and the surrounding area containing 50,000 persons or more. See *Newton's Telecom Dictionary*, 11th Edition at 375 (1996).

the incumbent LEC provides to itself or its affiliates.⁴⁶ Accordingly, we tentatively conclude that an incumbent LEC should report separately on its performance as provided to: (1) its own retail customers; (2) any of its affiliates that provide local exchange service; (3) competing carriers in the aggregate; and (4) individual competing carriers.⁴⁷ We tentatively conclude that such reporting will enable competing carriers to assess whether an incumbent LEC is providing access to OSS, interconnection, and OS/DA in a nondiscriminatory manner. An individual competing carrier will be able to compare the access it receives from an incumbent LEC with the access the incumbent LEC provides to itself or to a separate local exchange affiliate. Additionally, information on the access provided to competing carriers in the aggregate will help an individual competing carrier determine whether it is receiving nondiscriminatory access vis-a-vis other competing carriers by gauging whether the access it receives is comparable to that provided other competing carriers. We seek comment on these proposed levels of disaggregation and whether they will permit competing carriers to detect discrimination.

4. Relevant Electronic Interfaces

40. As the Commission has previously noted, an incumbent LEC must provide competing carriers the same electronic access to its OSS functions as it provides itself in accessing its own internal systems and databases.⁴⁸ Because incumbent LECs access their systems electronically for retail purposes, we tentatively conclude that incumbent LECs need measure only the access they provide electronically to competing carriers. Therefore, our proposals would only require incumbent LECs to measure the performance of the electronic interfaces that incumbent LECs offer to competing carriers for access to OSS.

⁴⁶ We address other issues related to reporting procedures, such as who should receive reports and confidentiality issues, in Part V *infra*.

⁴⁷ As part of its merger commitments, Bell Atlantic agreed to prepare its reports on performance measurements in this manner. See *In the Application of NYNEX Corp. Transferor and Bell Atlantic Corp., Transferee, for Consent to Transfer Control of NYNEX Corp. and Its Subsidiaries*, Memorandum Opinion and Order, 12 FCC Rcd 19985 at 20107, App. C, ¶ 1(b) (1997) (*Bell Atlantic/NYNEX Merger Order*). These reporting categories were also sought by a number of commenters in this proceeding. See, e.g., LCI/CompTel Petition at 12-13; MCI Comments at 7-8; Sprint Comments at 10; WorldCom Comments at 6, and the LCUG proposal at 5. These categories are often used by incumbent LECs. See, e.g., Letter from Todd F. Silbergeld, SBC Communications, to William F. Caton, Acting Secretary, FCC, Attachment 1 at 3 (filed Sept. 5, 1997) (*SBC Sept. 5 Ex Parte*); Bell Atlantic Nov. 20 *Ex Parte*, Exhibit A at 4.

⁴⁸ See, e.g., *Local Competition Second Reconsideration Order*, 11 FCC Rcd at 19742-43, ¶ 9 ("to the extent that an incumbent LEC provides electronic pre-ordering, ordering, provisioning, maintenance and repair, or billing to itself, its customers, or other carriers, the incumbent LEC must provide at least equivalent electronic access to requesting carriers in the provision of unbundled network elements or [resold services].").

41. We recognize that most incumbent LECs provide several types of electronic interfaces, such as a GUI-based⁴⁹ interface and an EDI-based⁵⁰ interface. We seek comment on whether these incumbent LECs must provide performance measurements for each type of electronic interface. We note that, in section 271 applications, BOCs have identified certain interfaces as those which meet the nondiscrimination standards of the Act and our implementing rules.⁵¹ We seek comment on whether an incumbent LEC should measure performance for each of its electronic interfaces or only some subset of the interfaces it offers. To the extent that incumbent LECs report on performance for all electronic interfaces, we tentatively conclude that they should disaggregate the data by interface type when reporting each performance measurement.

42. As noted above, we have sought to balance our goal of detecting possible instances of discrimination with our goal of minimizing, to the extent possible, burdens imposed on incumbent LECs. Because we intend to limit our proposed measurements to the performance of an incumbent LEC's electronic interfaces, we expect that most of the measurements proposed in this Notice can be collected through electronic coding or some other automatic logging procedure. We seek comment on which, if any, of our proposed measurements may require more labor-intensive collection methods and whether, as a result, they would be unduly burdensome.⁵²

⁴⁹ The term "GUI" refers to Graphic User Interface.

⁵⁰ The term "EDI" refers to Electronic Data Interchange. The EDI standard is defined by the Telecommunications Industry Forum. *Local Competition First Report and Order*, 11 FCC Rcd at 15761, ¶ 513, n. 1238.

⁵¹ *BellSouth South Carolina 271 Order* at ¶ 94 (because BellSouth did not rely on its LENS interface as the nondiscriminatory interface for ordering functions, the Commission did not evaluate that interface in determining whether BellSouth provided nondiscriminatory access to OSS ordering functions); *BellSouth Louisiana 271 Order* at ¶ 24, n. 19 (the Commission only considered orders submitted via EDI because BellSouth claimed it provided nondiscriminatory access through that interface); *see generally, Ameritech Michigan 271 Order*, 12 FCC Rcd at 20616-17, ¶ 137 (BOC must provide equivalent electronic access for competing carriers).

⁵² As noted above, we propose to measure only the performance of the electronic interfaces that incumbent LECs offer to competing carriers for access to OSS.

B. Proposed Measurements

1. Pre-Ordering Measurements

43. We have previously found that competing carriers must have access to pre-ordering information in order to compete effectively in the local market.⁵³ The pre-ordering function allows a competing carrier to gather and confirm information necessary to place an accurate order for its end user. Because many competing carriers retrieve pre-ordering information from the incumbent LEC's databases while a customer is on the line (as an incumbent LEC does), timely access to pre-ordering information is critical to a competing carrier's ability to interact with its customers. We therefore tentatively conclude that an incumbent LEC must measure the average interval for providing access to pre-ordering information to competing carriers, as well as to itself.⁵⁴ The Average Response Time measurement set forth in Appendix A could, however, be based on all queries sent to the pre-ordering interface or some subset of these queries. We seek comment on whether a sampling approach, such as the one adopted in the *Bell Atlantic/NYNEX Merger Order*, would be a sufficient method for assessing an incumbent LEC's nondiscriminatory provision of pre-ordering information.⁵⁵ In addition, we propose that an incumbent LEC disaggregate the results for this measurement according to the pre-ordering sub-functions listed in Appendix A.⁵⁶

⁵³ In general, pre-ordering consists of several functions including street address validation, telephone number reservation, feature availability, service availability, due date information, and customer service records (CSRs). *BellSouth South Carolina 271 Order* at ¶ 147. We note that the Commission stated previously that "although an incumbent carrier is not required to disclose [customer proprietary network information] CPNI pursuant to section 222(d)(1) or section 222(c)(2) absent an affirmative written request, local exchange carriers may need to disclose a customer's service record upon the oral approval of the customer to a competing carrier prior to its commencement of service as part of the LEC's obligations under sections 251(c)(3) and (c)(4)." The Commission also stated that "a carrier's failure to disclose CPNI to a competing carrier that seeks to initiate service to a customer that wishes to subscribe to the competing carrier's service, may well, depending upon the circumstances, constitute an unreasonable practice in violation of section 201(b)." *See In the Matter of Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information: Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as Amended*, CC Docket No. 96-115 and 96-149 ¶ 84-85 (rel. Feb. 26, 1998).

⁵⁴ This measurement seeks to ensure that an incumbent LEC is complying with its statutory requirements under section 251(c). *See supra* ¶¶ 28, 29.

⁵⁵ The *Bell Atlantic/NYNEX Merger Order* does not require Bell Atlantic to measure the average response time based on all the of pre-ordering queries received from each competing carrier or all of the pre-ordering queries it conducts for itself. Instead, Bell Atlantic conducts random test queries of pre-ordering information for both competing carriers and itself, and reports the results of its sampling on an aggregate level.

⁵⁶ We note that in its implementation of the terms of the *Bell Atlantic/NYNEX Merger Order*, Bell Atlantic does not disaggregate the results by pre-ordering sub-function. *See Bell Atlantic Nov. 20, 1997 Ex Parte*.

44. We recognize that there may be instances where an incumbent LEC does not provide access to certain pre-ordering sub-functions on a real time basis, but rather via batch files (*e.g.*, street address verification).⁵⁷ We seek comment on whether incumbent LECs should exclude those pre-ordering sub-functions that are not provided on a real time basis from this measurement, or whether there are alternative methods to detect possible discriminatory access in such instances.

45. In certain instances a competing carrier may be unable to retrieve pre-ordering information for each query attempt. Instead, it may receive a rejected query notice (also known as a failed attempt notice). As noted above, because many competing carriers attempt to retrieve pre-ordering information with a customer on the line, the timeliness of a rejected query notice is often critical. Without receiving such a response, a competing carrier will not know whether the information is forthcoming or whether another query attempt is required. We therefore seek comment on whether an incumbent LEC should measure the speed by which it provides rejected query notices to competing carriers as well as to itself. In addition, we seek comment on whether a rejected query notice measurement must be provided as a separate category for the pre-ordering function in general or, alternatively, disaggregated separately for each pre-ordering sub-function. Finally, we seek comment on whether incumbent LECs should measure the number of rejected query notices as a percentage of the total number of pre-ordering queries.

2. Ordering and Provisioning Measurements

a. Disaggregation of Data

46. Before describing the proposed ordering and provisioning measurements,⁵⁸ this section discusses the levels of disaggregation that we believe should apply to these measurements, as well as to the repair and maintenance measurements discussed below in Part V.B.3. We believe that some level of disaggregation is necessary to ensure the collection of meaningful results. We note that a number of parties have proposed various levels of disaggregation.⁵⁹ Although we make no tentative conclusions regarding the appropriate levels of disaggregation for ordering and provisioning measurements and repair and maintenance measurements, we seek comment on the thirteen measurement categories⁶⁰ set forth in

⁵⁷ Batch processing involves transmitting information at periodic intervals, such as every thirty minutes. Unlike real time processing, batch processing does not permit interaction between two databases or computers. See *Newton's Telecom Dictionary*, 11th Edition at 74 (1996).

⁵⁸ The proposed ordering and provisioning measurements seek to ensure that an incumbent LEC is complying with its statutory requirements under section 251(c). See *supra* ¶¶ 28, 29.

⁵⁹ See, *e.g.*, LCUG proposal at 56-57; BellSouth Nov. 3 *Ex Parte*; Bell Atlantic Nov. 20 *Ex Parte*; Ameritech Nov. 18 *Ex Parte*; SNET Oct. 31 *Ex Parte*.

⁶⁰ LCUG refers to measurement categories as "reporting dimensions." LCUG proposal at 56.

Appendix A.⁶¹ In order for competing carriers to track more easily the treatment accorded to certain types of orders throughout the ordering and provisioning process, we propose to use these thirteen measurement categories for the order completion measurements,⁶² the order status measurements,⁶³ the held orders measurement,⁶⁴ and the installation troubles measurement.⁶⁵ Similarly, in order for competing carriers to observe more easily correlations between the types of services or elements ordered and any subsequent need for repair and maintenance, we propose to use the same thirteen measurement categories for the various repair and maintenance measurements, the Average Time to Restore measurement, the Frequency of Troubles in a Thirty Day Period measurement, the Frequency of Repeat Troubles in a Thirty Day Period measurement and the Percentage of Customer Troubles Resolved within Estimated Time measurement.⁶⁶ As discussed above, we seek to balance our goal of detecting possible instances of discrimination with our goal of minimizing, to the extent possible, burdens imposed on incumbent LECs.⁶⁷ We seek comment on these proposals.

47. Our proposed categories reflect a middle ground between the detailed breakdowns proposed by LCUG and more aggregated measurements incumbent LECs have

⁶¹ These thirteen categories are: (1) Resale Residential POTS/dispatch; (2) Resale Residential POTS/non-dispatch; (3) Resale Business POTS/dispatch; (4) Resale Business POTS/non-dispatch; (5) Resale Specials/dispatch; (6) Resale Specials/non-dispatch; (7) Unbundled Loops with Interim Number Portability; (8) Unbundled Loops without Interim Number Portability; (9) Unbundled Switching; (10) Unbundled Local Transport; (11) Combinations of Unbundled Network Elements/dispatch; (12) Combinations of Unbundled Network Elements/non-dispatch; and (13) Interconnection Trunks. The term "dispatch" is explained *infra* at ¶ 49.

⁶² The order completion measurements proposed below in Part IV.B.2.b are the Average Completion Interval and Percentage Due Dates Missed.

⁶³ The order status measurements described below in Part IV.B.2.d are (1) the Average Reject Notice Interval, (2) the Average Firm Order Confirmation (FOC) Notice Interval, (3) the Average Jeopardy Notice Interval, (4) the Percentage of Orders in Jeopardy, and (5) the Average Completion Notice Interval.

⁶⁴ The Average Interval for Held Orders is described in Part IV.B.2.e.

⁶⁵ The Percentage of Troubles in Thirty Days for New Orders measurement is described below in Part IV.B.2.f. One exception to our proposed level of disaggregation for ordering and provisioning is for the Order Quality measurements, discussed further in that section. See *infra* Part IV.B.2.g.

⁶⁶ These measurements are described below at Part IV.B.3.

⁶⁷ For comparison purposes, we note that LCUG generally asks for more levels of disaggregation. For example, for the Average Completion Interval, LCUG breaks down the measurements into fifteen "service groupings," each of which would then be broken down by seven "order activities" resulting in approximately 105 measurement categories. See LCUG proposal at 24.

been using.⁶⁸ In general, in proposing the categories listed below, our intention is to minimize, to the extent possible, the reporting burden on incumbent LECs while at the same time ensuring that the measurements are reliable indicia of an incumbent LEC's compliance with the applicable statutory requirements. We seek comment on whether these categories appropriately balance the reporting burden on incumbent LECs with the need to produce meaningful measurement results. Specifically, we seek comment on whether different or fewer levels of disaggregation would sufficiently detect instances of discrimination, but would impose less reporting burdens on incumbent LECs.

48. In developing the proposed measurement categories, we seek to separate those types of orders that are likely to produce divergent results due to differences in order complexity or in the mechanisms used to provision orders. By separately grouping the results that are likely to vary due to such differences, we believe that any other meaningful differences, such as those resulting from discrimination, can be more easily detected. We seek comment on whether the thirteen proposed measurement categories listed in Appendix A are appropriate. In particular, we seek comment on whether these categories would disaggregate the data sufficiently to allow the detection of discrimination. We also seek comment on whether fewer levels of disaggregation would sufficiently detect instances of discrimination, but would impose less reporting burden on incumbent LECs.

49. We propose that incumbent LECs first break down the orders by separating resold services, unbundled network elements, and interconnection trunks. For resold services, we propose to disaggregate the measurements further according to the three broad categories of resold telecommunications services: 1) residential POTS;⁶⁹ 2) business POTS; and 3) special services.⁷⁰ We believe that each particular service that is available for resale can be categorized under one of these broader service umbrellas. Further disaggregation by service grouping does not appear to be necessary because there are no significant differences in the order complexity and provisioning mechanisms associated with the individual services in the three resold service groupings. We propose, however, that each group should be broken down by orders that require the dispatch of a service technician and those that do not. We believe that this breakdown is important because the need for field work has a significant impact on

⁶⁸ For example, LCUG proposes to disaggregate its order completion measurements by fifteen service groupings as well as seven order activities (e.g., new service installations, service migrations without changes, service migrations with changes). LCUG proposal at 56. In contrast, in its section 271 application for the state of Louisiana, BellSouth indicated that it disaggregated similar measurements by seven service groupings and three order activities, which are applicable to resale services only. See Application by BellSouth for Provision of In-Region, InterLATA Services in Louisiana, Appendix A, Volume 5, Tab 13, Affidavit of William N. Stacy at Exhibits WNS-10 and WNS-11 (filed on Nov. 6, 1997).

⁶⁹ The term "POTS" or "plain old telephone service" refers to the most basic types of telecommunications services offered by local exchange carriers to their customers.

⁷⁰ The special services category captures all non-POTS-type services, which require design intervention by the incumbent LEC (e.g., centrex, PBX trunks, channelized services, etc.).

the amount of time necessary to provision a resale order placed by a competing carrier.⁷¹ We seek comment on the proposed levels of disaggregation for resold services, as described above.

50. For unbundled network elements, we propose that incumbent LECs report separately the measurement results associated with ordering and provisioning different types of network elements (*i.e.*, unbundled loops, unbundled switching, and unbundled local transport). We believe that disaggregation by type of network element is necessary because there are varying degrees of order complexity and inter-carrier coordination involved with different types of network elements, including combinations of network elements, and that these variations will affect the time required to provision a network element order. In addition, we propose that orders for unbundled loops should be broken down by whether the loops are provisioned with interim number portability. We believe that the provisioning time for loops with interim number portability may differ from those without.⁷² We seek comment on our proposed levels of disaggregation for network element orders. We also seek comment on whether the unbundled loop category should be further disaggregated, as suggested by LCUG,⁷³ between 2-wire unbundled loops, which are generally used for POTS-type services, and all other loop types, such as 4-wire unbundled loops and unbundled DS1 loops, which may be more complex to provision.

51. Finally, we propose to include interconnection trunks as a separate measurement category. Although interconnection trunks are physically indistinguishable from transport links, interconnection trunks are unique because they are used for the transmission of traffic between two networks, whereas transport links are used for the transmission of traffic within the incumbent's network. As a result, the process for ordering interconnection trunks, as well as the mechanisms for provisioning those trunks, is likely to involve a higher degree of order complexity, as well as greater inter-carrier coordination, and, therefore, may require a separate reporting category. We seek comment on the inclusion of interconnection trunks as a separate measurement category.

⁷¹ We note that the term "dispatch" as used in this Notice refers to only those instances in which technicians must do work outside of a central office to fulfill an order request. The term "dispatch" does not include those instances in which a technician must do work inside of a central office to fulfill an order request.

⁷² It may take an incumbent LEC longer to provide an unbundled loop with interim number portability, rather than without interim number portability, because provision of number portability requires a switch update.

⁷³ LCUG proposal at 52-53.